SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM Corbond® III – Component B, JM Corbond® III 2.8 – Component B

Manufacturer or supplier's details
Company : Johns Manville Canada Inc.
Address : 5301 42 Avenue
           Innisfail, AB Canada T4G 1A2
Telephone : +1-303-978-2000
Emergency telephone number : +1-800-424-9300 (CHEMTREC)

Recommended use of the chemical and restrictions on use
Restrictions on use : For professional users only.
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations (WHMIS 2015)
Specific target organ toxicity - repeated exposure : Category 2

GHS label elements
Hazard pictograms : 

Signal word : Warning
Hazard statements : H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements : Prevention:
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Response:
P314 Get medical advice/ attention if you feel unwell.
Disposal:
P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Additional Labelling
The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 4.02 %
Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,3,3-pentafluor propane (HFC-245fa)</td>
<td>460-73-1</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate</td>
<td>13674-84-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>triethyl phosphate</td>
<td>78-40-0</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>trans-1,2-dichloroethylene</td>
<td>156-60-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>diethylmethylbenzenediamine</td>
<td>68479-98-1</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.
Immediately flush eye(s) with plenty of water.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Do NOT induce vomiting.
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Carbon dioxide (CO2)
Foam
Dry chemical

Unsuitable extinguishing media : High volume water jet

Hazardous combustion : No hazardous combustion products are known
SAFETY DATA SHEET

JM Closed-cell Spray Polyurethane Foam (cc SPF) – Component B (Canada)

Version 2.0  Revision Date 05/13/2019  Print Date 05/13/2019

products

Specific extinguishing methods : Standard procedure for chemical fires.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of)</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
</table>

3 / 11  US/EN
### Personal protective equipment

- **Respiratory protection**: Preferably a compressed airline breathing apparatus.
- **Hand protection**
  - Material: Impervious gloves
  - Remarks: Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- **Eye protection**: Tightly fitting safety goggles
- **Skin and body protection**: Impervious clothing
  - Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- **Hygiene measures**: Handle in accordance with good industrial hygiene and safety practice.
  - When using do not eat or drink.
  - When using do not smoke.
  - Wash hands before breaks and at the end of workday.
  - Written instructions for handling must be available at the work place.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: liquid
- **Color**: blue
- **Odor**: No data available
- **Odor Threshold**: No data available
- **pH**: No data available
- **Melting point/freezing point**: No data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Conditions to avoid : No data available
Hazardous decomposition products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
### Product:

**Acute oral toxicity**
- Acute toxicity estimate: $> 5,000$ mg/kg
- Method: Calculation method

**Acute inhalation toxicity**
- Acute toxicity estimate: $> 40$ mg/l
  - Exposure time: 4 h
- Test atmosphere: vapour
- Method: Calculation method

**Acute dermal toxicity**
- Acute toxicity estimate: $> 5,000$ mg/kg
- Method: Calculation method

### Acute toxicity

#### Components:

**tris(2-chloro-1-methylethyl) phosphate:**
- **Acute oral toxicity**
  - LD50 (Rat): 632 mg/kg

**Acute inhalation toxicity**
- LC50 (Rat): 4.6 mg/l
  - Exposure time: 4 h

**Acute dermal toxicity**
- LD50 (Rabbit): $> 5,000$ mg/kg

**Acute toxicity triethyl phosphate:**
- LD50: 500 mg/kg
- Method: Converted acute toxicity point estimate

#### trans-1,2-dichloroethylene:
- **Acute oral toxicity**
  - LD50 (Rat): 7,902 mg/kg
  - LD50 (Mouse): 2,122 mg/kg

**Acute inhalation toxicity**
- LC50 (Rat): 96 mg/l
  - Exposure time: 4 h

**Acute dermal toxicity**
- LD0 (Rabbit): $> 5,000$ mg/kg

#### diethylmethylbenzenediamine:
- **Acute oral toxicity**
  - LD50 (Rat): 472 mg/kg

**Acute inhalation toxicity**
- LC50 (Rat): 2.45 mg/l
  - Exposure time: 1 h
  - LC50 (Rat): $> 2.45$ mg/l
  - Exposure time: 1 h

**Acute dermal toxicity**
- LD50 (Rabbit): $> 1,000$ mg/kg
Skin corrosion/irritation

Components:
tris(2-chloro-1-methylethyl) phosphate:
Species: Rabbit
Result: No skin irritation

Skin corrosion/irritation
triethyl phosphate:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Skin corrosion/irritation
diethylmethylbenzenediamine:
Species: Rabbit
Exposure time: 4 h
Result: No skin irritation

Serious eye damage/eye irritation

Components:
tris(2-chloro-1-methylethyl) phosphate:
Species: Rabbit
Result: Mild eye irritation
Exposure time: 24 h
Method: Draize Test

Serious eye damage/eye irritation
triethyl phosphate:
Species: Rabbit
Result: Eye irritation
Method: OECD Test Guideline 405

Serious eye damage/eye irritation
trans-1,2-dichloroethylene:
Species: Rabbit
Result: Eye irritation

Serious eye damage/eye irritation
diethylmethylbenzenediamine:
Species: Rabbit
Result: Irritating

Respiratory or skin sensitisation

Components:
tris(2-chloro-1-methylethyl) phosphate:
Result: Does not cause skin sensitisation.
Germ cell mutagenicity

**Components:**

**tris(2-chloro-1-methylethyl) phosphate:**

Germ cell mutagenicity Assessment: Not mutagenic in Ames Test

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

**Components:**

**tris(2-chloro-1-methylethyl) phosphate:**

Effects on fertility: Species: Rat, male
Application Route: Inhalation

Reproductive toxicity Assessment: Experiments have shown reproductive toxicity effects in male and female laboratory animals. Did not show teratogenic effects in animal experiments.

**STOT - repeated exposure**

**Components:**

**diethylmethylbenzenediamine:**
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

**Components:**

**tris(2-chloro-1-methylethyl) phosphate:**
Species: Rat, male
NOAEL: 36 mg/kg
Application Route: Oral
Exposure time: 90 d

**diethylmethylbenzenediamine:**
Species: Rabbit, female
NOAEL: 1 mg/kg
Application Route: Skin contact

Species: Rat
NOAEL: 10 mg/l
Application Route: Inhalation (gas)
Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

tris(2-chloro-1-methylethyl) phosphate:
Toxicity to algae : EC50 \((\text{Scenedesmus capricornutum (fresh water algae)})\): 47 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC \((\text{Daphnia (water flea)})\): 32 mg/l

triethyl phosphate:
Toxicity to algae : EC50 \((\text{Desmodesmus subspicatus (green algae)})\): 901 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC \((\text{Daphnia magna (water flea)})\): 31.6 mg/l
  - Exposure time: 21 d
  - Method: OECD Test Guideline 211

trans-1,2-dichloroethylene:
Toxicity to fish : LC50 \((\text{Lepomis macrochirus (Bluegill sunfish)})\): 140 mg/l
  - Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:
- EC50 \((\text{Daphnia magna (water flea)})\): 220 mg/l
  - Exposure time: 48 h
Toxicity to algae:
- EC50 \((\text{Selenastrum capricornutum (green algae)})\): 798 mg/l
  - Exposure time: 96 h
- EC50 \((\text{Skeletonema costatum (marine diatom)})\): 712 mg/l
  - Exposure time: 96 h

Persistence and degradability

Components:

tris(2-chloro-1-methylethyl) phosphate:
Biodegradability : Result: Not readily biodegradable.

trans-1,2-dichloroethylene:
Biodegradability : Result: Not readily biodegradable.
  - Biodegradation: 8 %
  - Exposure time: 28 d
Bioaccumulative potential

**Components:**

**tris(2-chloro-1-methylethyl) phosphate:**
Partition coefficient: n-octanol/water : log Pow: 2.68

**triethyl phosphate:**
Partition coefficient: n-octanol/water : log Pow: 1.11

**trans-1,2-dichloroethylene:**
Partition coefficient: n-octanol/water : log Pow: 2.06

**Mobility in soil**
No data available

**Other adverse effects**

**Product:**
Additional ecological information : No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**
Disposal of residual product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**Land transport**
TDG: Not classified as a dangerous good under transport regulations

**Sea transport**
IMDG: Not classified as a dangerous good under transport regulations

**Air transport**
IATA/ICAO: Not classified as a dangerous good under transport regulations
SECTION 15. REGULATORY INFORMATION

TSCA list
TSCA - 5(a) Significant New Use Rule List of Chemicals : Not relevant

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D) : Not relevant

The components of this product are reported in the following inventories:
DSL : All components of this product are on the Canadian DSL

SECTION 16. OTHER INFORMATION

Further information
Revision Date : 05/13/2019

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.